

**Amendments to the Drawings:**

Reference numerals 20, 22 and 24 are referenced in the specification to indicate serial number 20, a PIN 22, and a registration number 24 that may be stored in storage 18 (See Application, p. 4, lines 7-8). Fig. 1 has been revised to include these reference numerals. A substitute drawing for Fig. 1 is attached hereto in Appendix A following page 11 of this Response.

### REMARKS

Claims 1-19 are remaining in the case. Claims 1 - 19 stand rejected. Figure 1 has been amended to include reference numerals 20, 22, and 24 that are referenced in the Specification. In addition, Claim 5 has been amended. Reconsideration of this application is respectfully requested.

#### Claim Rejections -35 USC § 103(a)

The Examiner has rejected claims 1 – 14 and 16 - 18 under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,237,612 to Raith (“Raith ‘612”) in light of US Patent No. 6,477,543 to Huang et al. (“Huang ‘543”). Claims 15 and 19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,237,612 to Raith (“Raith ‘612”) in light of US Patent No. 6,477,543 to Huang et al. (“Huang ‘543”) and further in view of US patent Appl. 2002/-138737 A1 to Schulz. However, the Office Action has failed to make a *prima facie* case of obviousness for any claim, and such rejections should be withdrawn.

The legal requirements for a *prima facie* case of obviousness are clear. “The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness.” MPEP § 2142. It is well established that *prima facie* obviousness is only established when three basic criteria are met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991) (MPEP 2144).

Raith '612. Raith '612 teaches a system that includes a fixed key and a changeable key (called a rolling key or "B-key") that are both applied as inputs to an authentication algorithm. (Raith 612, Abstract). The purpose of the system is to detect fraudulent users in a cellular radio communications network. *Id*; *see also* Raith '612, Col. 6, ll. 38 – xx: " a serious problem in existing cellular systems is the fraudulent use of cellular service by invalid or "false" mobile stations.") "Each authentication step may be generally performed at the option of the network operator." Raith '612, Col. 6, ll. 63 – 65.

Raith '612 discloses both unilateral and bilateral authentication. For unilateral authentication, *the network* determines and broadcasts a random challenge number ("RAND") to the mobile station. Raith '612, Col. 14, ll. 13-18 (emphasis added). Note that the network, not the client device, initiates unilateral authentication. Similarly, for bilateral authentication "the RAND used for bilateral authentication ... is a "mobile-specific" RAND which is determined by, for example, the home network and sent to a particular mobile station in the coverage area of a visited network." Raith '612, Col. 14, ll. 51 – 55.

Raith '612 summarizes its authentication algorithm as follows: "A random challenge signal is transmitted *from the network to the mobile station*." Raith '612, Summary.

For its bilateral authentication, Raith '612 discloses, again, that the authentication is initiated by the network: "The network transmits to the mobile station an authentication order or message which includes the RAND and the RESPBIS." Raith '612, Col. 17, ll. 18 – 20.

Claims 1, 8, 12, 16 and 18.

The Office Action has failed to make a prima facie showing of obviousness regarding Claims 1, 8, 12, 16 and 18. This is true at least for the reason that the prior art references cited by the Office Action do not either alone or in combination teach or suggest all the claim

limitations of such claims. For example, the cited art fails to suggest, teach or disclose that the first device authenticates the second device in response to an authentication request sent from the second device.

Claim 1 recites, in part, “the second device sending an authentication request to the first device” and “the first device, in response to the authentication request, authenticating the second device.”

Claim 8 recites, in part, “the client device: sending an authorization request to the server device.” Claim 16 recites, via dependence, the quoted limitation of Claim 8 as well.

Claim 12 recites, in part, “the server: receiving from the appliance an authentication request.” Claim 18 recites, via dependence, the quoted limitation of Claim 12 as well.

The references do not teach or suggest the quoted claim language. The Office Action cites Col. 17, lines 12 – 18 of Raith ‘612 and claims that such passage teaches “[t]he second device sending an authentication request to the first device.” However, this assertion is misguided. The cited passage simply indicates that, for bilateral authentication, certain key-dependent information is sent from the mobile station to the network. However, it is clear in the next sentence that such data is sent in response to an authentication request *sent by the network*: “[t]he network transmits to the mobile station an authentication order or message which includes the RAND and the RESPBIS. The mobile station uses the RAND to compute a RESP and a RESPBIS in accordance with the AUTH and sends the internally generated RESP to the network ...” Raith ‘612, Col. 17, ll. 18 – 25.

For at least these reasons, independent Claims 1, 8, 12, 16 and 18 are allowable. In addition, all claims that depend from these independent claims are also allowable: Claims 2 – 4, 9 – 11, 13 – 15, 17, and 19, respectively.

Claim 5. Claim 5 stands rejected over Raith '612 in light of Huang '543 as being obvious under 35 U.S.C. 103(a). Claim 5 has been amended. Applicants respectfully request withdrawal of the rejection in light of the amendment and the arguments herein.

As amended, Claim 5 recites that the web appliance includes "second storage to store an authentication protocol to generate an authentication request to be sent to the server" As is discussed above, the references cited in the Office Action fail to disclose, suggest, or teach, either alone or in combination, an authentication protocol to generate an authentication request from a web appliance to be sent to a server. Accordingly, a prima facie case of obviousness has not been made out, and the rejection of Claim 5 must be withdrawn.

Independent Claim 5 is allowable for at least this reason. In addition, Claims 6 and 7, which depend from Claim 5, are also allowable.

For the foregoing reasons, Applicants respectfully submit that the applicable rejections have been overcome and must all be withdrawn. All claims are therefore in condition for allowance. Applicants reserve all rights with respect to the application of the doctrine equivalents. Applicant respectfully requests that a timely Notice of Allowance be issued in this case. If the Examiner feels that an interview would help to resolve any remaining issues in the case, the Examiner is invited to contact Shireen Bacon of Intel, at (512) 732-3917.

Please charge any shortages and credit any overcharges to our Deposit Account No. 02-2666.

Respectfully submitted,

Dated: June 7, 2005

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Encl: Appendix A

## **APPENDIX A**

Replacement drawing for Fig. 1